

Carboxyhemoglobin (COHb) levels and related health effects ²	
% COHb in blood	Effects Associated with this COHb Level
80	Death ^a
60	Loss of consciousness; death if exposure continues ^a
40	Confusion; collapse on exercise ^a
30	Headache; fatigue; impaired judgment ^a
7-20	Statistically significant decreased maximal oxygen consumption during strenuous exercise in healthy young men ^b
5-17	Statistically significant diminution of visual perception, manual dexterity, ability to learn, or performance in complex sensormotor tasks (such as driving) ^b
5-5.5	Statistically significant decreased maximal oxygen consumption and exercise time during strenuous exercise in young healthy men ^b
Below 5	No statistically significant vigilance decrements after exposure to CO ^b
2.9-4.5	Statistically significant decreased exercise capacity (i.e., shortened duration of exercise before onset of pain) in patients with angina pectoris and increased duration of angina attacks ^b
2.3-4.3	Statistically significant decreased (about 3-7 percent) work time to exhaustion in exercising healthy men ^b
Source: a. U.S. EPA (1979); b. U.S. EPA (1985)	

Professionals, p. 9. EPA 402-R-94-007, 1994.

3. National Institute of Occupational Safety and Health. *NIOSH Pocket Guide to Chemical Hazards*, p. 54. DHHS (NIOSH) Publication No. 2005-149.

4. North Carolina Administrative Code, Title 13, Chapter 7, Subchapter 7F, Section .0101, Paragraph 4.

5. 29 Code of Federal Regulations, Part 1926, Section 55, Appendix A.

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Rights of Employees:

If employees experience dizziness, nausea or headaches on the job while using or in proximity to petroleum powered equipment, they may be experiencing symptoms of overexposure to carbon monoxide.

Employers are required to provide safe and healthy working conditions free of recognized hazards that cause or are likely to cause serious physical harm, serious injury or death. Employees who believe that working conditions are unsafe can file a complaint by calling 1-800-625-2267 or online through the N.C. Department of Labor Internet site (www.nclabor.com).

For more information concerning education, training and interpretations of occupational safety and health standard contact:

Bureau of Education, Training and Technical Assistance
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Information Sources:

1. National Institute of Occupational Safety and Health. “ALERT: Preventing Carbon Monoxide Poisoning From Small Gasoline-Powered Engines and Tools,” DHHS (NIOSH) Publication No. 96-118, 1996.

2. U.S. Environmental Protection Agency. *Indoor Air Pollution: An Introduction for Health*

HAZARD ALERT

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